

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with strikethrough. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1-6 and ADD claim 7 in accordance with the following:

1. (Currently Amended) A bottom removal-type paper supply apparatus, comprising:
a paper support base on which paper is stacked located at a bottom part of the bottom removal-type paper supply apparatus;

~~force applying means for applying a pressure on the paper stacked on the paper support base;~~

a first pickup roller provided at an end portion of the paper stacked on the paper support base, on a side toward a body of the bottom removal-type paper supply apparatus, and which picks a paper sheet from the paper stacked on the paper support base from the bottom and transports the paper sheet ~~into the bottom removal-type paper supply apparatus on a paper path;~~

a pressing roller which applies a pressure to the paper stacked on the paper support base towards the first roller, and which is provided at the end portion of the paper stacked on the paper support base;

a second pickup roller provided at a central portion of the paper stacked on the paper support base, and selectively assisting the first pickup roller to transport the paper sheet into the bottom removal-type paper supply apparatus; and

a shutter switchable between an open state in which the paper is in contact with the second pickup roller ~~enabling the second pickup roller to assist the first pickup roller to transport the paper on the paper path,~~ and a closed state in which the shutter prevents the contact between the paper and the second pickup roller, the shutter being provided on the second pickup roller, wherein the shutter is switched in the open state to use a paper transport force of the second pickup roller at the same time in addition a paper transport force of the first pickup roller only when more than a prescribed weight or a prescribed number of sheets of paper are stacked on the paper support base, and the shutter is switched in the closed state otherwise, to use only the paper transport force of the first pickup roller.

2. (Currently Amended) A bottom removal-type paper supply apparatus as set forth in claim 1, wherein the pressure applied to the paper by the force-applying-means-pressing roller is adjustable.

3. (Currently Amended) A bottom removal-type paper supply apparatus as set forth in claim 1, further comprising a mechanical assembly to switch wherein the shutter is switched between to the open state and from the closed state based on sensing the weight of the paper stacked on the paper support base, and the shutter is controlled to be in the open state when the weight of the paper is larger than the prescribed weight, and to be in the closed state when the weight of the paper is less than or equal to the prescribed weight when the weight of the paper stacked on the paper support base exceeds an elastic force of a spring included in the mechanical assembly.

4. (Currently Amended) A bottom removal-type paper supply apparatus as set forth in claim 1, further comprising a sensor located along the paper path, to sense when the first pickup roller fails to transport the paper on the paper path while the shutter is in the closed state, and to send a control signal to switch wherein the shutter is switched between in the open state and the closed state based on sensing a pickup miss by the first pickup roller, and the shutter is being controlled to be in the open state when a pickup miss a failure of the first pickup roller to transport the paper on the paper path has occurred because more than the prescribed number of sheets of paper are stacked on the paper support base, and to be in the closed state when while the first pickup roller successfully transports the paper on the paper path sheet of paper has been transported through the apparatus.

5. (Currently Amended) A paper supplying device supplying one sheet of paper at a time in an image processing apparatus, comprising:

a first pickup roller, located at an end portion of a paper stack, to pick a paper sheet from the paper stack, and to transport the paper sheet into the paper supply apparatus;

a second pickup roller, located at a central portion of the paper stack, and assisting to assist the first pickup roller to transport the sheet of paper into the paper supply apparatus when the second pickup roller is in contact to the paper the paper stack weighs more than a prescribed weight; and

a shutter switchable between an open state in which to prevent contact between the second pickup roller is in contact with and the paper stack, and a closed state in which the

shutter prevents the contact between the second pickup roller and the paper, so that only the first pickup roller transports the paper sheet through the paper supply apparatus, wherein the shutter is switched in the open state when while the paper stack weights more less than a the prescribed weight or has more than a prescribed number of sheets of paper.

6. (Currently Amended) The bottom removal-type paper supply apparatus as set forth in claim 1, wherein

the shutter and the second pick-up roller have a common axis, and the shutter has at least one first portion that has an arcuate cross section, which extends to a larger distance from the common axis than the pickup roller, and at least one second portion, which extends to a smaller distance from the common axis than the pickup roller, and

the at least one second-first portion is in contact with the paper stacked on the paper support base when the shutter is closed.

7. (New) The bottom removal-type paper supply apparatus as set forth in claim 2, wherein the pressure applied to the paper by the pressing roller is increased in steps when the first pickup roller fails to transport the paper on the paper path.